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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,150	12/31/2001	Young Jun Jung	K-0383	5205
34610	7590	03/10/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			CHEA, PHILIP J	
			ART UNIT	PAPER NUMBER
			2153	
DATE MAILED: 03/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,150

Applicant(s)

JUNG, YOUNG JUN

Examiner

Philip J Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-14 have been examined.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 86587/2000, filed on 12/30/2000.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5,7-11,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayan et al., and further in view of Zimowski et al. (US 6,112,196).

As per claims 1 and 7, Sayan et al. disclose an inter-processor communication method for a mobile communication system, the method, as claimed, comprising the steps of:

- receiving a message transmission request from a user, said request including a message and a destination address of said message (see column 5, lines 18-30, where user is considered client, and the request inherently contains a message and a destination address to perform one of the functions mentioned in lines 25-30 of column 5); and
- sending a connection request to a connection manager in order to be connected to a TCP (transmission control protocol) layer, if it is determined that none of said existing sockets are connected to a destination address (see Sayan et al. column 12, lines 42-67, where new agents are created to handle communication channels).

However, it fails to disclose determining whether any one of currently existing sockets, whose file descriptors are stored in a socket management database, is connected to said destination address.

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Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sayan et al., as evidenced by Zimowski et al.

In an analogous art, Zimowski et al. discloses a network with a management system that uses worker threads to connect to a database further disclosing determining whether any worker has an existing connection to a particular destination (see column 4, lines 37-55).

Given the teaching of Zimowski et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sayan et al. by reusing connections to a destination, such as disclosed by Zimowski et al., in order to allow efficient throughput to a destination without the overhead of creating new connections for each request.

As per claim 2, Sayan et al. in view of Zimowski et al. further disclose sending said message to said TCP layer if it is determined that any one of said existing sockets is connected to said destination address (see Sayan et al. column 10, lines 53-67, where TCP layer is implied once agent processes request).

As per claim 3, Sayan et al. in view of Zimowski et al. further disclose creating a new socket connected to said destination address and attempting to be connected to said TCP layer (see Sayan et al. column 12, lines 44-56, where new socket is implied since the new agent is created to accept communications); and storing a new file descriptor of said new socket in said database if said attempt is succeeded (see Sayan et al. column 12, lines 44-56 where file descriptor is considered the socket of the newly created agent).

As per claim 4, Sayan et al. in view of Zimowski et al. further disclose newly forming a receiving module for new socket (see Sayan et al. column 12, lines 44-56, where a new receiving module is implied with the creation of the new agent).

As per claim 5, Sayan et al. in view of Zimowski et al. further disclose that the user is connectionless-oriented (see Sayan et al. column 10, lines 17-37).

As per claim 8, Sayan et al. in view of Zimowski et al. further disclose that said module sends said message to said TCP layer if any one of said existing sockets is connected to said destination

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address (see Sayan et al. column 10, lines 53-67, where TCP layer is implied once agent processes request).

As per claim 9, Sayan et al. in view of Zimowski et al. further disclose that said manager stores a new file descriptor of said new socket in said database if said attempt is succeeded (see Sayan et al. column 12, lines 44-56, where file descriptor is considered the socket of the newly created agent).

As per claim 10, Sayan et al. in view of Zimowski et al. further disclose that the manager forms a receiving module after storing said new file descriptor (see Sayan et al. column 12, lines 44-56, where a new receiving module is implied with the creation of the new agent).

As per claim 11, Sayan et al. in view of Zimowski et al. further disclose that said manager waits to receive another connection request if said attempt is not succeeded (see Sayan et al. column 12, lines 42-56, where another connection request is considered establishing connection with newly created agent).

As per claim 14, Sayan et al. in view of Zimowski et al. further disclose that the user is connectionless-oriented (see Sayan et al. column 10, lines 17-37).

4. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Sayan et al. in view of Zimowski et al. as applied to claim 1 above, and further in view of Vincent et al. (US 6,839,732).

Although the system disclosed by Sayan et al. in view of Zimowski et al. shows substantial features of the claimed invention (discussed above), it fails to disclose informing said user of an incomplete message transmission, if not connected to TCP layer for a given period of time.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sayan et al., as evidenced by Vincent et al.

In an analogous art, Vincent et al. discloses a socket pool for transmitting data, provided that there is an available socket in the pool to use for transmission further disclosing informing a user of an incomplete message if not connected to the TCP layer for a given period of time (see column 7, lines 16-34).

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Given the teaching of Vincent et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sayan et al. in view of Zimowski et al. by informing the user of an incomplete transmission, such as disclosed by Vincent et al., in order to give the user a reasonable estimate of the pool size and resources required to process the request.

Claims 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Sayan et al. in view of Zimowski et al. as applied to claim 7 above, and further in view of Internet Protocol Specification.

As per claim 12, although the system disclosed by Sayan et al. in view of Zimowski et al. shows substantial features of the claimed invention (discussed above), it fails to disclose a message header including a message header indicator, a message length, a source address, a destination address and a message identifier.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Sayan et al. in view of Zimowski et al., as evidenced by the Internet Protocol Specification.

In an analogous art, the Internet Protocol Specification that is used for transmission of data over an IP network discloses a message header including a header indicator (see page 11, Figure 4. [Version]), a message length (see page 11, Figure 4. [IHL]), a source address (see page 11, Figure 4. [Source Address]), a destination address (see page 11, Figure 4. [Destination Address]), and a message identifier (see page, Figure 4. [Protocol]).

Given the teaching of the Internet Protocol Specification, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Sayan et al. in view of Zimowski et al. by describing the message header that is used in an IP network, such as disclosed by the Internet Protocol Specification, in order to allow efficient transmission of data using IP packets.

As per claim 13, Sayan et al. in view of Zimowski et al. in view of the Internet Protocol Specification further disclose sending the message together with a header to TCP layer using a new socket (see Sayan et al. column 12, lines 45-56, where the header described by the Internet Protocol Specification is implicitly used).

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

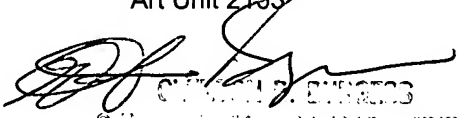
Hunt; Gary T.	US 5802306 A
Zimowski; Melvin Richard et al.	US 6112196 A
Gardner; David Neal et al.	US 6446251 B1
LaRosa; Mark I. et al.	US 6628965 B1
Joseph, Paul G. et al.	US 20040003085 A1
Kalmuk, David C. et al.	US 20040122953 A1
Bush, Eric N.	US 20040221059 A1
Alibakhsh, Massoud et al.	US 20010056505 A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 7:00-4:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Philip J Chea
Examiner
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